Postel

9259

Network Working Group
Request for Comments 308
NIC 9259
References: RFC 254

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13 MARCH 1972
Rcvd 29 March 72

ARPANET HOST AVAILABILITY DATA

Several months ago a SURVEY program was implemented on the MIT-DMCG ITS PDP-10 system to aid in gathering information on the availability of various HOSTS on the ARPANET. The purpose of this Request for Comments is threefold:

1. to inform the Network Working Group of the existence of this information gathering service and about getting access to it,

2. to present the results of SURVEY for its first few months, and

3. to correct errors in our data or collection methods.

Briefly, the SURVEY program works as follows: At 15-minute intervals whenever the MIT-DMCG ITS Time-Sharing system is in normal operation, a SURVEY is started. The SURVEY program attempts to establish a connection to the LOGGER (socket 1) of each HOST listed in its table. The results of each connection attempt are recorded for future reference. The Initial Connection Protocol is aborted prior to reading the transmitted socket number so as to cause the minimum amount of processing at SURVEYed HOSTS. If the LOGGER connection succeeds, the average request-for-connection response time (in seconds) for the HOST is updated. This information can later be viewed in several formats using the MIT-DMCG server TELNET "NETWRK" as described below.

Each test results in the assignment of one of the following five statuses:

1. LOGGER available - connection completed.

2. LOGGER not responding - RFC sent (HOST-HOST OK), but no response (20 seconds allowed).

3. LOGGER rejecting - CLOSE returned by NCP.

4. NCP not responding - RESET timed out (15 seconds allowed).

5. HOST dead - host-dead status returned by IMP.

Below you will find a summary of the information gathered to date. It must be remembered that the SURVEY program can only run when MIT-DMCG ITS Time-Sharing System is in normal operation and the MIT IMP is operational. Thus the current figure of 94% for

MIT-DMCG is inaccurate. (It should actually be closer to 66%.)

There are, in addition, two other shortcomings of which we are aware. The first is that SURVEY is on a 24-hour basis and does not consider advertised up time. For example, MIT-DMCG will never be better than 67% on a Tuesday since the machine is always unavailable from 4 p.m. to midnight. The second shortcoming is the fact that the Lincoln Lab's TX-2 shows as "never available". This reflects an as yet undiagnosed problem currently under investigation.

To get availability information from DMCG, you must first follow the scenario in RFC 254. Once in NETWRK, the DMCG user-TELNET, there are seven available commands which pertain to SURVEY data:

SUMMARY.OF.SURVEYS - summarizes most recent information.

HISTORY.OF. <host name> - gives a detailed recent history of the given host. This generates a lot of output, so use it sparingly.

ACTIVE.HOSTS - lists those hosts who accepted a connection at least once during the last 24 hours.

BEST.SURVEY - lists the best of the recent surveys.

LONGTERM SUMMARY.OF.SURVEYS - summarizes all past information. This was used to generate the table on the next page.

LONGTERM HISTORY.OF <host name> - gives a summary of past history of the given host. It does not generate as much output as the HISTORY command.

LONGTERM ACTIVE.HOSTS - lists those hosts who accepted a connection at least once since December 13, 1971.

For the above seven commands, "recent" is defined as "within the last 24 hours or less".

For help in accessing SURVEY data and comments on improving the admittedly limited SURVEY service, please contact:

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6528 Surveys from 09:55:18 on 12/13/71 to 08:50:41 on 03/20/72

--HOST--	-#-	-%-UP-	-RESP-	*
ucla-nmc	001	064%	00.93	
sri-arc	002	064%	02.96	
ucsb-75	003	048%	00.53	
utah-10	004	057%	03.23	
bbn-ncc	005	000%	00.00	
multics	006	047%	05.60	
rand-rcc	007	000%	00.13	
sdcadept	010	000%	02.60	
harv-10	011	022%	00.23	
ll-67	012	021%	03.70	
su-sail	013	000%	00.00	
ill-11	014	000%	00.00	
case-10	015	000%	00.00	
cmu-10	016	034%	00.23	
burr	017	000%	00.00	
ames-67	020	000%	00.00	
radc-645	022	000%	00.00	**
nbs-11	023	000%	00.00	**
tink-418	025	000%	00.00	**
usc-44	027	000%	01.13	**
ncar7600	031	000%	00.00	**
ucla-ccn	101	070%	00.30	
sri-ai	102	000%	02.26	
tenex	105	060%	02.40	
mit-dmcg	106	093%	01.10	***
rand-csg	107	013%	02.96	**
harv-1	111	000%	00.23	
ll-tx2	112	000%	01.76	
ill-6500	114	000%	00.00	
burrtest	117	000%	00.00	**
tenexb	205	018%	02.93	
mit-ai	206	000%	00.00	
harv-11	211	000%	00.00	

* Remember that "UP" is defined as "Logger accepting connections."
** Surveyed only since February 18, 1972.
*** MIT-DMCG is actually up about 66% of the time.